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## ABSTRACT

How the term urban and other terms related to it are defined can enhance the efficiency of research on urban education issues. A review of urban and related word uses reveals considerable variety in definitions. Since the aim of much research is to derive useful generalizations applicable to other similar groups, it is important to define the characteristics that accompany the term urban. The following questions would help to define this key term: (1) Why is this study considered to be urban research? (2) For the purposes of this study, what are significant characteristics of the educational establishment? (3) What are significant characteristics of the urban environment and of other settings designated by such terms as rural, suburban, and the like? (4) What explanation should be offered to readers so as to optimize their use of the research report? When investigators begin by defining in operational terms the aspect of the education system that will be viewed as the outcome variable, then features of the urban environment that hypothetically contribute to the outcome variable are also defined operationally. This combination of education-aspect and urban-environment features becomes the definition of urban for the purposes of the particular project. Cited are four references. (JB)

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## Defining Urban in Educational Studies

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This paper concerns the question of how to define the term *urban* so as to enhance the efficiency of research on urban education issues?

The event that first drew this matter to my attention occurred when I was attached to a team of Indonesian scholars studying the vocabulary and syntax knowledge of pupils at various levels of the Indonesian school system. The research was intended to help textbook writers adjust the contents of school books to the language abilities of pupils in the nation's multilingual society of 150 million people. Most Indonesian children in their own homes speak a local tongue, but at school they use the national language, Bahasa Indonesia, which is a sophisticated version of traditional Malay. With few exceptions, textbooks are written in the national language.

The textbook authors' problem of writing in language understood by pupils throughout the country resulted chiefly from the fact that certain of the nation's 350 or so local languages are very close to Bahasa Indonesia in vocabulary and structure, while others are only vaguely similar, and still others are quite different. Hence, the central research question became: Which Bahasa Indonesia words and sentence forms will children in different sections of the nation already know when they open their textbooks, and which words and structures will need to be explained within the text itself or in the teacher's guidebook?

As the research team considered how they would select samples of pupils to represent different levels of language knowledge, one member proposed an urban-rural dimension. His assumption was that urban children command more advanced national-language skills than rural children. Such an opinion was based on evidence that in many societies rural peoples lag behind city dwellers in modernization, including education and technological development. By drawing samples of children from both urban and rural settings, the investigation would cover the range of language ability from the most skilled (urban) to the least skilled (rural) pupils.

However, when the team began to identify specific geographical settings, it became clear that using a bare urban-rural dimension based solely on population size and density would be too crude to yield suitable data. The key variable affecting pupils' command of Bahasa Indonesia was not simply the size of a community but, rather, children's opportunities to hear and use the language. Thus, samples should be drawn to reflect different degrees of experience with the national tongue.

As team members adopted this new tack, they agreed that their original urban-rural dimension had not been entirely wrong. People from all over Indonesia immigrated to such large cities as Jakarta, Surabaya, Medan, and Bandung where the national language became the medium of communication that people of all language backgrounds used in common. In such settings, children daily heard and used Bahasa Indonesia, even though a local dialect might also be common in their homes. However, in some rather large inland towns whose residents were almost entirely from one language background, the local language predominated in daily communication throughout the community. Children in such settings might encounter Bahasa Indonesia only in school. Furthermore, the amount of children's Bahasa Indonesia experience in the largest cities was certainly no greater than that in remote rural sections of the nation in which the local language was nearly identical to Bahasa Indonesia. In such villages, the only language children heard in either their homes or the broader community was the national tongue. In effect, choosing samples of respondents simply on the basis of population size and density would not suffice.

To solve their dilemma, the research team adopted two criteria intended to reflect three levels of opportunity to hear and use Bahasa Indonesia—a high level, a medium level, and a low level. By investigating children's command of vocabulary and syntax in

geographical settings representing three such levels, the researchers believed they could discover the words and sentence-types that textbook writers needed for preparing language-appropriate reading materials. The criteria focused on:

- (1) the degree of similarity between (a) Bahasa Indonesia and (b) the chief mode of daily communication among people of the community, and
- (2) the amount of mass-communication media in the Indonesian language available in the community (newspapers, magazines, books, and radio and television programs). This second standard was added to the first on the assumption that a more sophisticated knowledge of the language would be gained in communities blessed with greater quantities of mass media.

Thus, settings were chosen to reflect three levels of these two elements. As a consequence, there was something of a rural-urban flavor to the final selection of sampling sites. The largest urban centers scored high on both criteria. The lowest scoring sites were in remote rural areas where a local language unrelated to Bahasa Indonesia predominated and mass communication media rarely if ever reached the residents. But the choice of sites was not identical to that which would have resulted if sampling had been based only the size and density of a community's population.

The Indonesian case, then, illustrates a general research concern reflected in the three questions that serve as the center of discussion in the following pages: How have researchers studying urban matters defined the word *urban* as well as other terms related to it? In what ways can the decision about how to define *urban* be important? What guidelines for defining *urban* might be adopted to promote the value of research on education in urban settings?

### Common Ways of Defining *Urban*

A review of books and journals featuring research on population concentrations reveals that authors vary considerably in the way they define such terms as *urban*, *metropolitan*, *city*, *large city*, *capital city*, *inner city*, *ghetto*, *suburban*, *rural*, *country*, *town*, and *village*. Consider, for example, the following six definition options.

A first method, frequently found in both professional and popular literature, is to use a term that is unaccompanied by any explanation of precisely what it means in the study under discussion. The author apparently presumes that the meanings of such words as *urban* and *rural* are so universal that they require no clarification. This results in such phrases as "Fifty-four million individuals live outside America's designated urban areas" (Nachtigal, 1982, p. 5). What readers lack here is an exact meaning for *designated*.

A second common approach is that of publishing a study in a journal or book which is designated as urban, such as *Urban Education* or *Urban Studies*, without identifying what makes the content and conclusions specifically urban. However, the fact that the article or chapter appears in such a publication suggests that the contents are assumed to apply in urban settings. For example, in the 1990-1991 issues of *Urban Education*, authors of 12 articles followed such a practice.

Another popular method involves selecting a site which by apparent common sense is a city and thus qualifies as urban —Berlin, Tokyo, Buenos Aires, Seoul, Hong Kong, and the like. A review of two years' issues of *Urban Education* revealed New York as that journal's most frequently mentioned city in studies of urban issues. However, this method suffers from want of precision, since places referred to as cities or towns can vary greatly in even such basic characteristics as numbers of residents and their geographical concentration. For example, one report of a study in *Urban Education* identified the research sites as Nebo and Park City, Utah, with no indication of why these sites qualified as urban (Petersen, Deyhle, & Watkins, 1988).

A fourth common technique consists of defining *urban* or *rural* numerically in terms of population size and density. Frequently a size is designated, such as "population over 25,000," without the density specified more precisely than that suggested by such a phrase as "100,000 living in close proximity" or "a closely settled area containing 50,000 or more inhabitants." In other cases, density will be indicated by the number of people per square mile or square kilometer.

A fifth option is that of adopting the definition used in conducting a population census. Consider, for example, how *urban* and *rural* were delineated for the 1980 U.S. census.

As defined for the 1980 census, the urban population comprises all persons living in urbanized areas and in places of 2,500 or more inhabitants outside urbanized areas (see definition of urbanized areas). More specifically, the urban population consists of all persons living in (1) places of 2,500 or more inhabitants incorporated as cities, villages, boroughs (except in Alaska and New York), and towns (except in the New England States, New York, and Wisconsin), but excluding those persons living in the rural portions of extended cities; (2) census designated places of 2,500 or more inhabitants; and (3) other territory, incorporated or unincorporated, included in urbanized areas. The population not classified as urban constitutes the *rural* population (1980 *Census of Population*, 1983, pp. A1-A2).

This, however, is not the entire census definition. A page of additional, somewhat complex distinctions among forms of *urbanized areas* were designated in order to "provide a better separation of urban and rural population in the vicinity of large cities. An urbanized area consists of a central city or cities and surrounding closely settled territory (urban fringe)" (1980 *Census of Population*, 1983, p. A2).

When authors of a study merely note that they have adopted the census definition, and they fail to offer more precise information about the area investigated, readers can still be puzzled about exactly what *urban* is intended to mean. Puzzlement can result if (a) the readers are not well acquainted with the details of the complicated census definition or (b) the authors have not adopted all of the nuances of the complete census description. Furthermore, a reader may be misled if the authors have not explained which census definition they used, a problem resulting from the fact that the Census Bureau on different occasions has altered the way *urban* differs from *rural*. For example:

Since 1960 there has been an increasing trend toward the extension of city boundaries to include territory essentially rural in character. The classification of all the inhabitants of such cities as urban would include in the urban population persons whose environment is primarily rural in character. For the 1970 and 1980 censuses, in order to separate these people from those residing in the closely settled portions of such cities, the Bureau of the Census classified as rural a portion or portions of each such city that was located in any urbanized area. To be treated as an extended city, a city must contain one or more areas that are each at least 5 square miles in extent and have a population density of less than 100 persons per square mile. The area or areas must constitute at least 25 percent of the land area of the legal city or includes at least 25 square miles. These areas are excluded from the urbanized area.

Those cities designated as extended cities thus consist of an urban part and a rural part. Only the urban part is considered to be the central city of an urbanized area. However, the term *central city* ... refers to the entire population within the legal boundaries of the city (1980 *Census of Population*, 1983, p. A2).

A sixth approach to defining *urban* involves combining population size with descriptive characteristics chosen as indicators of the kind of urbanity or rurality the investigators had in mind. Authors either may limit their choice to one descriptive characteristic beyond population size or may extend it to more than one. As an instance of a single characteristic:

Guadalajara and Puebla were selected as case studies because both have a high level of tenancy and non-ownership by Mexican standards and both are in metropolitan areas of over one million people (Gilbert & Varley, 1990).

An extreme proposal of multiple indicators for distinguishing urban from rural is Nachtigal's list of characteristics he derived from summaries of past investigations.

Rural Americans lag behind their metropolitan counterparts in terms of wage levels, family income, adequate housing, and access to education and health care. Rural systems have relatively fewer support staff and services, less revenue, and lower per-pupil expenditures. Children in rural America begin school later, progress more slowly, and attain fewer years of education than their urban/suburban counterparts. In addition, rural residents are less likely to enter college, receive vocational training, or enroll in adult education programs (Nachtigal, 1982, p. 5).

In conclusion, there is no standard practice among researchers for defining *urban*, *rural*, or other terms associated with population size and density. This lack of uniformity causes problems for both the producers and the consumers of research.

### Effects of Decisions about How to Define *Urban*

With few exceptions, the purpose of every social-psychological research project is not merely to describe a given group of people in a particular setting. Instead, the purpose is to derive generalizations that can usefully be applied to people other than those who were directly studied. Thus, the intent of virtually all urban research is to produce information helpful for understanding people in urban settings other than the one originally investigated. If this goal of generating useful generalizations is to be achieved, then the other people and environments to which the research results can properly be applied should display the same—or very similar—*significant characteristics* as those exhibited by the group and the setting on which the research was originally conducted.

The word *characteristics* in this context refers to both (1) people's behavior—or, oftentimes, their physical and personality traits—and (2) those forces in the environment that influence the kinds of behavior that are of central interest to the investigators. The adjective *significant* means that not all characteristics are of concern in the study. In effect, the researchers are focusing on only a limited number of *causal factors*, ones estimated to be particularly influential determinants of people's behavior or living conditions. The titles of research reports are usually intended to suggest in a very general way what this focus has been, such as *Juvenile Delinquency in the Ghetto* or *Traits of Teachers in Suburbia* or *Life-Skills Curricula for Inner-City Schools*.

What is then needed within such reports is a specification of significant characteristics of both the people and the setting on which the research was conducted. As noted in the foregoing discussion of common ways to define *urban*, authors too often fail to make clear what these characteristics have been. It's my guess that in many cases the researchers have failed to think through the matter of defining the setting of their study. As a consequence, they are poorly equipped to suggest the kinds of people and environments to which the results of their research might validly apply. Thus, readers of their work are left with little or no guidance in deciding how closely such results might fit the people and environments with which they themselves are acquainted.

### An Approach to the Task of Defining *Urban*

In view of the foregoing discussion, what approach to defining terms might profitably be followed by those who conduct and report educational research in urban settings? In response, I would propose that investigators be guided by four questions: (1) Why is this study considered to be urban research? (2) For the purposes of this study, what are significant characteristics of the educational establishment? (3) Likewise, what are significant characteristics of the urban environment and of other settings designated by such terms as *rural*, *suburban*, *central city*, and the like? (4) What explanation should be offered readers so as to optimize their use of the research report?

Throughout the following pages, the terms *education aspects*, *education system*, and *educational establishment* will all refer to (a) the people involved in education (learners, parents of learners, teachers, administrators, specialized personnel) or (b) educational practices (instructional, administrative).

### Why Does This Study Qualify as Urban?

Among a variety of reasons that an educational study could be labeled *urban research*, the following three are of particular note.

**Undelineated Label.** The first reason—and perhaps the most frequent—is that the study has been conducted in a setting which just happens to be urban according to any of the several meanings of *urban* described in our earlier review of definitions. The author of the study makes no assumptions and proposes no hypotheses about characteristics of the setting that would differentiate it from nonurban settings or from other places that also might qualify as urban. In effect, the term *urban* in such cases has no distinctive meaning and, from the standpoint of being useful, might as well have been omitted. Common instances of this usage are those in which the name of a city (Stockholm, Paris, Johannesburg, Calcutta, Albuquerque) or a general geographic/demographic term (*ghetto*, *capital city*, *urban fringe*) is used to identify the study as urban. If there do happen to be any significant, distinctive urban characteristics of the people or setting, then readers of the reports would need to have these characteristics in mind ahead of time, since the authors have failed to describe them.

**Delineated Significant Characteristics.** The second reason is that the researchers estimate that certain features of the environment in this study are both (1) significant determinants of selected educational aspects and (2) are found only—or especially—in the kind of setting in which this research was conducted. Frequently such research is pursued in order to test the accuracy of the estimate or to render it more precise.

In these cases, it becomes the task of the researcher to define in operational terms each chosen aspect of the education system and of the environment that is considered to be a significant characteristic. The word *operational* here means that the way each aspect will be recognized, measured, or evaluated needs to be specified. The investigator is further obligated to provide a rationale to support the presumption that each characteristic might be significant.

**Comparative Delineated Characteristics.** The third reason is that the researchers wish to compare two or more settings in terms of selected aspects of education or environments that are estimated to be both (1) important determinants of educational conditions and (2) different between one setting and another. For instance, an investigator might hypothesize that pupils' levels of self-confidence differ between children living in a central city and ones living on the urban fringe. Or a study might focus on how job skills are learned in a metropolitan suburb as compared to a sparsely populated farming community.

In this sort of comparative research, the investigator is responsible to furnish, for each of the settings to be compared, precise operational definitions of every characteristic of the educational establishment and the setting that is considered significant.

It should be apparent that I am more in favor of delineated significant characteristics (and their comparative versions) in definitions of urban than of undelineated labels. The next guide questions, then, concern how the desired characteristics of people and settings can be identified.

### What Are the Significant Characteristics of Education?

The task of identifying and assessing the important characteristics of education can be guided by three questions that concern (1) selected aspects of the people or practices of the

educational establishment, (2) correlations between these aspects and other variables, and (3) methods of identifying and assessing the aspects.

*The Selected Education Aspects.* The question is: Which aspects of people or practices of the education system interest me, and why these?

The education aspects in research are typically chosen for one of three reasons reflected in the terms *outcome variables*, *causal factors*, and *noncausal correlated variables*.

Outcome variables are aspects of the education system that researchers are trying to explain—that is, they are trying to explain how those aspects got that way. Examples of such variables are children's failure in school, pupils' poor health, students' use of illicit drugs, problems of passing school-bond legislation, curriculum changes, and the like.

Causal factors are conditions that researchers estimate have produced or contributed to the outcome variables. For example, an investigator may hypothesize that a lack of parental monitoring of children's television viewing habits contributes to children's school failure, and attitudes held by members of street gangs contribute to students' using illicit drugs.

It seems widely recognized that no form of human behavior is produced by a single causal factor. Rather, any behavior is the result of the confluence of multiple forces, some of which exert a more powerful influence than others. Since researchers cannot assess every factor that might have even the least influence on a given outcome, the best that investigators can do is to identify and assess the one—or few—most potent of the presumed causal factors. These are the *significant characteristics* that need to be delineated clearly in the description of the research.

Noncausal correlated variables are aspects of the educational establishment that may not cause an outcome, but they are still correlated with the outcome variable. Oftentimes the aim of a research project is to determine which variables that are correlated with an outcome are probably causes and which are related to the outcome but are not contributing causes. In other words, the research task is to differentiate between *causal* and *casual* variables. For example, if a higher degree of child neglect was found in families in which both parents were employed than in families in which one parent stayed home, is the causal factor "both parents work versus one parent works" or does the factor labeled "one-worker-versus-two workers" just happen to be somewhat correlated with degrees of child neglect while the real cause is something else, such as a combination of such other variables as (1) the type of after-school supervision of the child, (2) the quality of parents' interaction with the child, and (3) the child's level of social intelligence.

In summary, the educational aspects on which a researcher focuses can play the roles of outcome variables, presumed causal factors, or noncausal correlated variables. It is important that investigators indicate which of these three roles they intend a given variable to fulfill. It is also important that the authors tell why they have chosen each of the variables and have assigned them their roles.

*Correlations Among Variables.* Of the possible relationships between (a) specified aspects of education and (b) specified aspects of the environment, which ones interest me and why?

In educational studies, the essence of explanation consists of demonstrating why certain variables are related to each other while others are not. Or more precisely, explanation involves offering a line of reasoning that shows why there is a higher degree of correlation between certain factors than between others. Consequently the investigators' problem becomes that of (1) deciding which of the possible correlations among aspects of education and features of the environment warrant attention and then (2) positing a line of reasoning that might explain the degree of relationship found between those variables. As an example, consider a study involving two education variables—students' level of academic success and students' use of drugs. The investigator's choice of these two variables has been founded on the hypothesis that youths who do poorly in their studies are more prone to use drugs than those who do well.

However, the research study is more specifically *urban* when there is a comparison of a education aspect with one or more characteristics of an environment defined as *urban*. For

instance, an investigator might assess the relationship between the extent of gang violence in the community (as a feature of the environment) and the ability of pupils to concentrate on their studies (an educational outcome), with this choice of factors based on the theory that an uncontrolled, destructive social atmosphere in a community distracts learners from academic pursuits.

In effect, I am suggesting that in research on urban education there is typically imbedded in the study's meaning of *urban* a selection of educational aspects that are estimated to be related to characteristics of an urban setting. If the hypothesized correlations are actually found in the study, then it becomes the researcher's task to suggest whether the relationship is causal or simply casual and then to adduce an argument in support of this suggestion.

*Methods of Identifying and Assessing Education Aspects.* Definitions used in research studies are most specific when they are carried to the operational level. In other words, the most precise way of conveying the meaning of a particular variable is to describe the operations involved in recognizing or measuring it in real-life situations. For instance, we best understand what is intended by the term *academic success* when we learn that a student's grade-point-average throughout high school has been used as the indicator of academic performance. We know what the phrase "ability of pupils to concentrate on their studies" means when we are told that the researcher measured concentration by observing how consistently selected pupils in a classroom carried out individual assignments at their desks on 10 successive school days. We understand what is intended by "incidence of drug use" when the researcher reports that incidence was judged by means of questionnaires filled out anonymously by high-school students during one social-studies class period.

### What Are the Significant Characteristics of the Urban Environment?

As in the case of education aspects, the task of identifying and assessing the significant characteristics of an urban setting can be directed by three questions, ones focusing on (1) selected features of the environment, (2) correlations among variables, and (3) methods of identifying and assessing those features. For convenience of discussion, the first two questions will be considered together. The third will be presented separately.

*Selected Environmental Features and Correlations among Variables.* The two guide questions are: Which features of the environment do I estimate exert significant influence on the characteristics of education that I have identified (or vice versa) and why? What relationships do I consider important between (a) specified aspects the educational establishment and (b) specific features of the environment, and why?

Like education aspects, environmental variables can be conceptualized as outcomes (effects,) causal factors (causes), or noncausal correlates (casual relationships). An example of an environmental factor serving as an outcome variable would be found in a study focusing on how students' attitudes about conserving natural resources will influence a city's waste-product recycling practices. Although, as in this example, educational research can center on the environmental outcomes of people's behavior, the majority of studies view the variables the other way around. Most investigations treat questions of how urban conditions affect students or affect the conduct of the education system. In most studies, the researchers are seeking to discover the magnitude of correlations between (a) hypothesized causal factors in the urban setting and (b) some aspect of the people involved in education (learners, teachers, administrators) or of the educational establishment's policies and practices.

The problem for researchers, then, is one of identifying which urban features they believe might have an important effect on the aspect of education in which they are interested. Cast as a question, the problem becomes: What is the nature of the relationship (and particularly the magnitude of correlation) between (a) one or more estimated causal factors in the urban setting and (b) one or more selected education outcomes? The way this question is

answered is intimately linked to the way *urban* will be defined in the study at hand. Why this is the true can be demonstrated with the following example.

To begin, let us assume that our problem is a typical one in urban-education research — that of discovering a causal relationship between (a) one or more features of an urban environment and (b) an education outcome. Our education outcome is the incidence of respiratory disorders in school children. The variable *respiratory disorders* is the significant education aspect which serves as our initial guide to choosing the urban-environment characteristics we will hypothesize as significant. Our research project will then consist of collecting data to test our hypotheses about the degree of influence those environmental factors likely have on respiratory infections among pupils. Our choice of environmental features is guided by information from the past about such breathing disorders as the common cold, influenza, asthma, lung cancer, and the like. The two environmental variables we chose to study are air quality and weather conditions. More precisely, we wish to learn more about the effect of those two variables on pupils' respiratory infections in urban versus rural settings.

As we set out to define *urban* and *rural* for this investigation, I suggest that our study will yield the most precise results if our definition focuses on environmental characteristics that are probably *causal*. This means that we will not be satisfied with defining urban and rural in terms of population size and density, since neither of those is a cause. It is true that, in general, there is a higher proportion of respiratory difficulties in crowded cities than in sparsely settled country villages. However, population size and density are not causal factors in themselves. They are merely noncausal correlates of something else that contributes to respiratory disorders. In our study we are hypothesizing that the *something else* could be air quality and weather conditions as truly causal factors. In other words, any correlation between population size/density and breathing problems is the result of differences in the contents of the air and the weather conditions in large and small concentrations of people. But not all cities of similar size are alike in either air quality or climate. A smokey factory city to which many workers commute by car can have far more air pollution than does a city of similar size which has outlawed polluting industries and whose residents travel mostly by public transportation. Likewise, weather conditions in a Minnesota farming district can differ markedly from those in a Texas ranching area, though both may be called *rural*. As a result of such differences, any correlation between population size/density and pulmonary infections will be considerably lower than the correlation between any truly causal environmental features and pulmonary disorders.

If we wish to base constructive social action on the results of our study, we should recognize that simply computing the relationship between population size/density and the incidence of respiratory problems furnishes us no useful information. Seeking to reduce the population of a community is not only an unrealistic endeavor, but such a reduction in itself does not get at the cause. In contrast, if we define the environmental factors in terms of air quality and weather, we can take constructive social action. If poor air quality is found to be at least a partial cause of respiratory disorders, we can take steps to improve the air (reduce auto and industrial emissions). If we find that weather conditions also contribute significantly to respiratory infections, we can conceivably improve people's protection from inclement weather (suggest suitable clothing, housing, work habits, and forms of recreation).

*Methods of Identifying and Assessing Urban Characteristics.* What methods should I use for recognizing and assessing each of the significant aspects of people, and why these methods?

As noted above, the initial guide to choosing urban characteristics is the aspect of education on which the research is to focus. If this aspect is viewed as the outcome variable, then the question becomes: What features of the urban environment do I estimate are at least partial determinants of that particular aspect of education? The identification of such features can be guided by (a) common-sense observations of urban conditions as related to the education aspect, (b) generalizations from past research studies which the

present investigators believe should be verified, refined or refuted, or (c) a social-psychological theory which the investigators wish to apply or test.

Once the environmental features have been identified, each needs to be defined operationally. For example, in our hypothetical research on pupils' respiratory disorders, the variable *air quality* needs to be specified in terms of the percentages of different chemicals in the atmosphere and the way these amounts will be measured. Likewise, the variable *weather conditions* or *climate* needs to be specified in terms of temperature, wind, humidity, precipitation, and the like. Likewise, the techniques for measuring amounts of each of these factors needs to be described.

### What Explanation of *Urban* Should Readers Receive?

I have suggested in the foregoing discussion that a definition of *urban* in educational research is most useful if it specifies characteristics of any setting labeled *urban* that are likely significant determinants of the particular educational outcome that interests the researcher. At the operational-definition level, this means not only that the significant environmental aspects (the urban factors) and educational outcomes be identified, but also that the techniques used to recognize and assess each aspect be explained in detail. Such a working definition serves as the researcher's clearest guide to sampling, instrument construction, and the interpretation of results. That type of definition is also of great aid to readers who might wish to replicate the study in another setting or to estimate how well the results of the reported investigation might fit their own situation. However, a detailed definition of this variety may be rather lengthy and complex. The question then may be asked: How much of such an extensive definition should be included in reports of the research study? I would propose that such a decision be guided by three criteria —most-significant features, available space, and nature of the readership.

*Most Significant Features.* If the procedures suggested in this paper are followed, then *urban* will not be defined simply by such a term as *city* or *metropolitan area*, by the name of a community (Bombay, Lima, Beijing), or by population size and density. Instead, the definition will include a description of environmental features that are presumed to be significantly related to specified educational variables in a causal manner. If these features differ markedly between large and small population concentrations, then their description might be prefaced with such a phrase as: "The term *urban* in the following pages is used in particular sense. It refers to environments in which...." The "which" is then followed by a description of the selected environmental characteristics. In effect, the essence of the definition of *urban* and other such terms resides in the specification the aspects of the environment considered significant in this particular study.

*Available Space.* When the report of a study is issued as a master's-degree thesis or doctoral dissertation, there are no space limitations. This is also the case with accounts of research prepared for funding agencies or for informal distribution among professional colleagues. In such outlets, the complete, detailed definition of *urban* should be published so that readers not only recognize how closely the setting of the investigation matches the settings with which they are acquainted, but they also could replicate that research.

In contrast to outlets that offer unlimited space, articles in professional journals must conform to set space restrictions. The same is true of reports appearing in the popular press —magazines, newspapers, and radio or television broadcasts.

In between these two extremes of unlimited and highly restricted space are short monographs and book chapters, which offer the opportunity for moderately detailed descriptions of a study.

Consequently, a full operational definition of significant characteristics of education and of the environment should appear in outlets providing unlimited space. In contrast, in outlets that enforce stringent space restrictions, there may be room for only brief mention of the most potent educational and environmental features, so that detail and precision are sacrificed.

*Nature of the Readership.* Readers of professional journals usually have a store of specialized knowledge beyond that held by the general public. Therefore, a single word or brief phrase may suffice to inform the journal audience of some environmental feature or research procedure that would mean nothing to someone not well acquainted with the field. Examples of such items are *megapolis*, *anova*, *systematic sampling*, and *Likert scale*. Such terms can be used in an article without the sort of accompanying explanation required by less knowledgeable readers.

On the other hand, specialists in the field will often wish to know certain crucial technical details about a study that would be of no interest to the general reader. Such details are often needed in journal articles and extended research reports.

Thus, the author of a research report can profitably consider the nature of the likely reading audience when deciding on how detailed the definition of *urban* and similar terms should be.

### Conclusion

In this paper I have proposed that in research designed to explain how urban conditions affect aspects of education, investigators can profitably begin by defining in operational terms the aspect of the education system that will be viewed as the outcome variable. Then features of the urban environment that hypothetically contribute to the outcome variable are also defined operationally. This combination of education-aspect and urban-environment features becomes the definition of *urban* (or any similar term) for the purposes of the particular research project.

Furthermore, if the investigators chose to study the influence of some education aspect on the urban environment, then the selected education aspect becomes the imagined causal variable, and features of the environment that hypothetically are affected by that education aspect are defined operationally to form that study's definition of *urban*.

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